

# Rhodora

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*Records*

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# Rhodora

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## THE GENUS STREPTOPUS IN EASTERN AMERICA.

M. L. FERNALD.

THE two "Twisted Stalks," *Streptopus amplexifolius* (L.) DC. and *S. roseus* Michx., are common in woodlands of eastern Canada and many portions of the northern United States; and though both plants have the solitary erect stem springing from a short thick caudex and usually forking above, they are in many technical characters clearly distinct. The stems of *S. amplexifolius* are whitish and glabrous above, in *S. roseus* greenish and usually ciliate-hispid above. The strongly glaucous amplexicaul leaves of *S. amplexifolius* are glabrous throughout, those of *S. roseus* green, scarcely amplexicaul, and conspicuously ciliate on the margins. The perianth of *S. amplexifolius* is campanulate at base, but the segments spread widely from near the middle and quickly become recurved; that of *S. roseus* campanulate, the segments slightly if at all divergent, only the old shriveling tips becoming recurved. The anthers of *S. amplexifolius* are lance-subulate, entire, and many times longer than the filaments; of *S. roseus* narrow-ovate, bicuspidate, and about the length of the filaments. The stigma of *S. amplexifolius* is subentire or merely shallow-lobed, of *S. roseus* deeply 3-cleft.

Besides these two well-known plants, another species, *Streptopus brevipes* Baker (*S. curvipes* Vail) occurs in the mountains from Alaska to Oregon. It resembles a small simple-stemmed *S. roseus* but has shorter pedicels and a very slender elongate rootstock. So far as known this characteristic plant does not occur east of the Rocky Mountains.

In northern Michigan, however, there is a plant which in its slender rootstock is apparently nearest related to the northwestern *S. brevipes*,



but which has the stem forking, the leaves glaucous and soft-ciliate, and the pedicels and flowers much longer than in *S. brevipes*; and in the alpine regions of the Shickshock Mountains of eastern Quebec there is another plant with a simple or subsimple stem suggesting *S. brevipes*, but with short thick caudex and ciliate leaves much as in *S. roseus*, and purplish flowers structurally like those of *S. amplexifolius*. These two plants, that of northern Michigan with slender rootstocks, and the Shickshock plant with usually simple stems, ciliate leaves and strongly recurved perianth segments, are apparently species which have heretofore been unrecognized in our flora. In order to make clearer the affinities of these plants, the characters of the other eastern species of *Streptopus* are briefly included in the following synopsis.

\* Rootstock short and thick.

+ Perianth-segments wide-spreading or recurved from near the middle: anthers lance-subulate, entire, many times exceeding the filaments: stigma subentire or merely lobed.

**STREPTOPUS AMPLEXIFOLIUS** (L.) DC. *Stem* forking, very rarely simple, 3–9 dm. high, *whitish-green and glabrous* except occasionally at base: *leaves* amplexicaul, *glabrous throughout, glaucous beneath*: *peduncles* glabrous, simple or forked, in anthesis 1.5–3 cm., in fruit 1.5–8 cm. long: *perianth* greenish-white or sometimes roseate, its lance-attenuate segments 8–11 mm. long: fruit globose to ellipsoid, 1–2 cm. long, scarlet.—Fl. Fr. iii. 174 (1805). *S. distortus* Michx. Fl. i. 200 (1803). *S. amplexicaulis* Poir. Dict. vii. 467 (1806). *S. amplexifolius*, *β. americanus* Roemer & Schultes, Syst. vii. 311 (1829). *Uvularia amplexifolia* L. Sp. 304 (1753).—Throughout the forested area from Labrador to Alaska, south to the mountains of North Carolina, Michigan, South Dakota, New Mexico, and northern California; in eastern Quebec ascending to subalpine regions: Greenland, Europe, and Asia.

**S. oreopolus** sp. n. *Caule* simplice vel semel furcato 2–3.5 dm. alto viridi ciliato-hispido; *foliis* ovatis vel lanceolatis subamplexicaulibus ciliato-denticulatis, supra viridibus subtus pallidis vix glaucis 3–8.5 cm. longis 0.7–3 cm. latis; *pedunculis* exigue hispidulis 1–3 cm. longis; *perianthio* vinaceo, *segmentis* lanceolato-attenuatis superne falcatis 8–12 mm. longis; *antheris* lanceolato-subulatis integris quam filamenta longioribus; *stigmatibus* subintegro vel trilobato.

*Stem* simple or once forked, 2–3.5 dm. high, *green, ciliate-hispid*: *leaves* ovate or lanceolate, slightly amplexicaul, *ciliate-denticulate*, green above, pale but scarcely glaucous beneath, 3–8.5 cm. long, 0.7–3 cm. broad: *peduncles* sparingly hispidulous, 1–3 cm. long: *perianth* claret-color, the lance-attenuate strongly falcate segments 8–12 mm.

long: anthers lance-subulate, entire, longer than the filaments: stigma subentire or 3-lobed: fruit unknown.—QUEBEC, mossy knolls and damp rocks above timber-line, altitude 1000–1050 meters, Mt. Albert, Gaspé County, August 8–15, 1905 (*J. F. Collins & M. L. Fernald*).

+ + Perianth-segments with the tips only recurved in age: anthers ovate 2-horned, shorter than or about equalling the filaments: stigma 3-cleft.

*S. ROSEUS* Michx. Stem usually forked, rarely simple, 2.5–6 dm. high, often hispidulous above: leaves slightly or scarcely amplexicaul the margins ciliate: peduncles simple or forked, 1–2.5 cm. long: perianth pink-purple, the lanceolate segments 8–12 mm. long: fruit subglobose, about 1 cm. in diameter, cherry-red.—Fl. i. 201, t. 18 (1803). *Uvularia rosea* Pers. Syn. i. 360 (1805). *Hexorima dichotoma* Raf. Med. Rep., Hex. 2, v. 351 (1808) and Journ. de Phys. lxxxix. 262 (1819). *Hekorima dichotoma* Kunth, Enum. iv. 204 (1843).—In woods, Newfoundland to the mountains of Georgia, west to Wisconsin and Manitoba; in New England ascending to the subalpine districts.

\* \* Rootstock slender and wide-creeping.

*S. longipes* sp. n. Rhizomate elongato tenui (2–4 mm. diametro); caule furcato apice ciliato-hispido 3–4 dm. alto; foliis ovatis vel ovato-lanceolatis sessilibus ciliatis, subtus pallidis, 4–6.5 cm. longis 1.5–3 cm. latis; pedunculis ciliato-hispidulis 1.5–2 cm. longis; perianthio campanulato rubello, segmentis lanceolato-attenuatis 10–12 mm. longis; antheris lanceolato-ovatis bifidis quam filamenta brevioribus; stigmate trifido.

Rootstock elongate, 2–4 mm. in diameter: stem forked, ciliate-hispid above, 3–4 dm. high: leaves ovate or ovate-lanceolate, sessile, ciliate, pale beneath, 4–6.5 cm. long, 1.5–3 cm. broad: peduncles simple, ciliate-hispid, 1.5–2 cm. long: perianth campanulate, reddish, the lance-attenuate segments 10–12 mm. long: anthers lance-ovate, 2-horned, shorter than the filaments: stigma 3-cleft: fruit unknown.—MICHIGAN, in forest of *Acer Saccharum*, Turin, Marquette County, June 5, 1901 (*Bronson Barlow*).—Resembling a pale-flowered *S. roseus*, but clearly distinct in its slender elongate rootstock. Nearer the northwestern *S. brevipes* which has simple stems, darker entire or denticulate but scarcely ciliate leaves, shorter peduncles (in fruit rarely 1 cm. long) and shorter perianth (5–9 mm. long).

GRAY HERBARIUM.



## NOTES ON SOME PLANTS OF BANGOR, MAINE.

ORA W. KNIGHT.

THE plants which are mentioned in this article were collected within the limits of Bangor jointly by Mr. F. M. Billings and myself. Many are new to the State while others are from beyond the previously known limits of distribution in Maine. Specimens of all these plants have been submitted to Prof. M. L. Fernald of the Gray Herbarium for identification, and I am very sure we have presented him with duplicates of all the species here recorded.

*Salix nigra* Marsh. Specimens in fruit were collected from a stunted shrub growing on the shore of the river above Bangor, June 15, 1904. We know of no other plant of this species near here.

*Urtica dioica* L. Found growing in ballast on a wharf near "High Head" August 7, 1904.

*Filipendula ulmaria* Maxim. Roadside out Hammond St. and not near any house, July 25, 1904. Also seen in same place in 1905.

*Sisymbrium altissimum* L. Common along the water front between "City Point" and waterworks in 1904 and 1905.

*Vicia tetrasperma* Moench. Growing abundantly in grass land in rear of a house for the last five years.

*Lotus corniculatus* L. Growing in ballast along water front below "High Head" in 1904 & 1905.

*Trifolium dubium* Sibth. In ballast on wharf below "High Head" July 16, 1905.

*Aegopodium podagraria* L. Weed in waste places, escaping to roadside from cultivated ground where it is grown as an ornamental foliage plant.

*Echinospermum lappula* Lehm. In ballast on wharf July 4, 1904.

*Anchusa arvalis* Reich. First recorded in RHODORA, May, 1904, p. 91. This species is a persistent perennial, and though not spreading seems inclined to hold fast where first found by us.

*Convolvulus arvensis* L. Growing in rear of warehouse along the water front at "High Head." We have not found it elsewhere. It seems to be spreading in this particular spot.

*Galeopsis ladanum* L. Ballast on wharf, July 16, and Aug. 7, 1904.

*Stachys annua* L. With the preceding at same time and place.

*Stachys palustris* L. Found growing near the edge of a field in moist soil, by Mr. Billings, July 7, 1901.

*Scutellaria churchilliana* Fernald. Wet ground along the Penobscot River below the waterworks in 1904. Also found along river in town of Veazie in 1905.

*Scrophularia leporella* Bicknell. Observed along the water front in Bangor the past three years, and found in Brewer by Mr. Billings in 1905.

*Crepis virens agrestis* Koch. Many plants growing on a wharf below "High Head," July 16, 1904. Thinking it merely a form of the common fall dandelion we took only a few specimens.

BANGOR, MAINE.

## THE VARIATIONS OF *CAREX PAUPERCULA*.

M. L. FERNALD.

IN 1803 Michaux described from Lake Mistassini at the head of Rupert River a small *Carex* which, from its tiny few-flowered spikes, he named *C. paupercula*.<sup>1</sup> By subsequent authors the Michaux plant has been treated without question as a depauperate phase of the polar *C. irrigua* of J. E. Smith<sup>2</sup> (1826) which was based upon *C. limosa*, var. *irrigua* originally published by Wahlenberg<sup>3</sup> in 1803 from Scandinavia; while by many recent authors both *C. paupercula* and *C. irrigua* have been treated as identical with the antipodal *C. magellanica*, described by Lamarck<sup>4</sup> in 1789 from the Straits of Magellan.

A recent study of these three plants has convinced the writer that in our ordinary interpretation of them we have drifted far from the original conceptions of Lamarck, Michaux, and Wahlenberg; and that in order to emphasize certain points which have been too generally ignored it is necessary to review the characteristics of the plants. Since the boreal plant described as *Carex irrigua* is of the broadest distribution and consequently the best known of the three it may appropriately receive the first consideration.

As already stated *Carex irrigua* has by many students been regarded

<sup>1</sup> Michx. Fl. ii. 172 (1803).

<sup>2</sup> Smith in Hoppe, Caric. Germ. 72 (1826).

<sup>3</sup> Wahl., Act. Holm. (1803) 162.

<sup>4</sup> Lam. Encyc. iii. 385 (1789).



as identical with *C. magellanica*. This identity, as interpreted by Francis Boott, was not absolute for, while in 1847 he had regarded the plants as specifically distinct,<sup>1</sup> he subsequently treated them as varieties of one species. In doing so, however, he reversed in a manner which would nowadays be considered quite irregular the nomenclatorial status of the plants, offering the following explanation:—"I have adopted the name of Lamarck [*magellanica*], as I cannot see any specific distinction between the Fuegian and the European and [North] American plant; but I have described the last as the typical form, as most generally known, giving a figure of the first as a var.  $\beta$ ."<sup>2</sup>

Subsequent authors have varied in their interpretation of the two plants, but those who have followed Francis Boott in regarding them as specifically inseparable have generally failed to indicate that there is even a varietal difference between the two. Others, however, have regarded the boreal *Carex irrigua* as specifically distinct from *C. magellanica*; and an examination of specimens collected by Dr. R. O. Cunningham in January, 1869, at Port Famine, and of the descriptions and plates of Schkuhr, Boott, and others, indicates that this is the wiser course.

In the first place, *Carex magellanica* has androgynous spikes. All descriptions from Lamarck's original<sup>3</sup> in 1789 to Macloskie's<sup>4</sup> in 1904 agree upon this, and in the plates of Schkuhr<sup>5</sup> and the Flora Antarctica<sup>6</sup> the plant is thus represented, though in Boott's Illustrations<sup>7</sup> one of the five specimens drawn is shown with the terminal spike wholly staminate; and Boott states upon the authority of Spach that, of the 26 specimens in the Herbarium of the Muséum d'Histoire Naturelle at Paris 2 have the terminal spike staminate and 24 have it staminate only at base. Of the boreal *C. irrigua* which has recently passed as *C. magellanica* I have examined 633 inflorescences of which 600 have the terminal spike strictly staminate and only 33 have it more or less androgynous. These figures, then, show very clearly opposite tendencies of the two plants.

Furthermore, the much larger scales of *Carex magellanica* are nearly or quite as broad as the perigynia. In *C. irrigua*, on the other hand, the shorter narrower scales so fail to cover the perigynia that even in

<sup>1</sup> Boott in Hook. Fl. Antarct. 365 (1847).

<sup>2</sup> Boott, Ill. ii. 80 (1860).

<sup>3</sup> Lam. Encyc. iii. 385 (1789).

<sup>4</sup> Macloskie, Fl. Pat. 284 (1904).

<sup>5</sup> Schkuhr, Riedgr. 52, t. N., fig. 51 (1801).

<sup>6</sup> Hook. Fl. Antarct. t. 143. (1847).

<sup>7</sup> Boott, Ill. ii. t. 220 (1860).



comparatively young plants those whitish organs extend conspicuously each side of the narrow scales.

One other character which, from the material at hand, seems to separate the Fuegian and Patagonian plant from its boreal ally is in the leaf-sheath. In *C. magellanica* the pale nerveless band which extends down the sheath from the auricle is rather firm, opaque, and strongly dark-dotted. In *C. irrigua* it is thin and membranous, translucent, and faintly or obscurely dotted.

In view of these well marked characters of the plants it seems that the true *Carex magellanica* of the Patagonian and Fuegian region is a species quite as distinct from the extreme boreal *C. irrigua* as are its other allies, *C. laxa*, *C. limosa*, and *C. rariflora*. The boreal plant, *C. irrigua*, however, presents in North America three well marked variations which it is the final purpose of this paper to discuss. This fact, that not all the North American specimens are identical with those of polar and alpine Europe, was noticed as early as 1841 by Drejer who said: "Specimina americana majora et vegetiora sunt, quum ulla europaea, quae vidi"<sup>1</sup>; and this statement was seconded by Francis Boott<sup>2</sup> who added that the culm of the North American plant is frequently scabrous, but who, nevertheless, preferred to regard this taller often scabrous North American plant as the "typical" *C. magellanica* because it was "most generally known."

A study of the abundant material of *Carex irrigua* in the Gray Herbarium and the Herbarium of the New England Botanical Club shows that in the colder parts of Canada and the Eastern States the common phase of the plant is quite like the European in its comparatively low stature, castaneous scales, and ordinarily glabrous culms. Southward and in the Great Lake region, however, the common form differs in the characters mentioned by Drejer and by Boott; and with its tendency to greater stature and often scabrous culms it shows less color in the scales, these having green central portions and pale brown to straw-colored margins. In none of these points is the plant thoroughly constant, but as a fairly marked American variety it seems advisable to separate it from the true *C. irrigua* which in Europe rarely if ever tends to such an extreme.

Another tendency of the species is the plant which was discovered by Michaux at Lake Mistassini and which abounds in alpine bogs of

<sup>1</sup> Drejer, Revis. 51 (1841).

<sup>2</sup> Boott, Ill. ii. 80 (1860).

the Shickshock Mountains, in Gaspé Peninsula. It is quite like the typical *Carex irrigua* except for its smaller stature and its tiny few-flowered spikes. This plant was described by Michaux as a distinct species, and a beautiful pencil-sketch in the Gray Herbarium, with detailed drawings by Decaisne, of an original Michaux specimen, leaves no question of the identity of the Shickshock plant. This dwarf alpine or subalpine extreme has the dark scales and the glabrous culms of typical *C. irrigua*, so that there is no doubt of its true affinity. So far as known to the writer this few-flowered plant is confined to the colder parts of eastern Canada; but since it was described as a species by Michaux in 1803, long before the wider-distributed *C. irrigua* was given specific recognition in 1826, we are obliged, by the rulings of the recent International Congress at Vienna, to retain for the species the name given it by Michaux.

The characteristics and nomenclature, then, of the three phases of *Carex paupercula* may be summarized as follows.

CAREX PAUPERCULA Michx. Culms 1–2.5 dm. high, glabrous: pistillate spikes few-flowered, ovoid, 4–8 mm. long: scales castaneous throughout.—Fl. ii. 172 (1803).—QUEBEC, Lake Mistassini (*Michaux*); alpine bogs, Mt. Albert, Gaspé Co., August 12, 1905 (*Collins & Fernald*, no. 48).

Var. *irrigua* (Wahbenberg) comb. nov. Plant 1–4.5 (very rarely becoming 5–8) dm. high; the culm usually glabrous: pistillate spikes cylindric, in maturity 1–1.6 cm. long: scales castaneous throughout.—*C. limosa*,  $\beta$ , *irrigua* Wahl. Act. Holm. (1803) 162; Dewey, Sill. Jour. x. 42 (1826); Torr. Ann. Lyc. Nat. Hist. N. Y. iii. 425 (1836). *C. limosa*  $\gamma$ , *irrigata* Wahl. Fl. Lapp. 243, t. 15, fig. 2 (1812). *C. lenticularis* Dewey, Sill. Jour. vii. 273 (1824), not Michx. *C. irrigua* Smith in Hoppe, Caric. Germ. 72 (1826); Hoppe & Sturm, Caric. Germ. t. 38 (1829); Reich. Ic. Fl. Germ. viii. 17, t. 238, fig. 594 (1846); Carey in Gray, Man. 549 (1848); Anders. Cyp. Scand. 36, t. 7, fig. 72 (1849); Liebm. & Lange, Fl. Dan. Suppl. 13, t. 106 (1865). *C. magellanica* Boott, Ill. ii. 80, t. 219, 220 (1860); Dewey, Am. Jour. Sci. xxxix. ser. 2, 70 (1865); Bailey, Proc. Am. Acad. xxii. 94 (1887) and in Gray, Man. ed. 6, 602 (1890); Britton in Britton & Brown, Ill. Fl. i. 313 (1896), in part; not Lam.—Boreal and alpine regions of Europe. In America from the subarctic regions south in cold bogs and on mountains to NOVA SCOTIA, northern Worcester Co., MASSACHUSETTS, Pocono Mt., PENNSYLVANIA, Pic River, ONTARIO, and

UTAH. Most abundant from the Gulf of St. Lawrence to the White Mountains.

Var. **pallens** var. nov. Planta 3-8 dm. alta, culmis saepe scabris; spicis cylindricis 1-1.8 cm. longis, squamis viridibus margine fulvis vel flavescentibus.—NOVA SCOTIA, peat bogs, North Sydney, July 11, 1883 (*J. Macoun*): MAINE, Arbor Vitae swamps, Presque Isle, July 12, 1902 (*Williams, Collins, & Fernald*); Arbor Vitae swamp, Blaine (*Fernald*, no. 2038); bog, Crystal, June 24, 1898 (*Fernald*, no. 2036); sphagnous swamp, Sangerville, July 1, 1895 (*Fernald*, no. 254); Cedar swamp, Buckfield, July 1, 1878 (*J. A. Allen*, no. 21a.): NEW HAMPSHIRE, Tuckerman's Ravine, July 11, 1895 (*J. R. Churchill*); Crawford Path, Mt. Clinton, July 18, 1895 (*E. & C. E. Faxon*): VERMONT, Burlington, June 15, 1896 (*A. J. Grout*); Cedar swamp, Fair Haven, June 27, 1899 (*W. W. Eggleston*): MASSACHUSETTS, Washington, Berkshire Co., July 5, 1859 (*W. Boott*): CONNECTICUT, sphagnous swamp, Norfolk, June 14, 1904 (*C. H. Bissell*): NEW YORK, Big Square Pond, Adirondack Mts., July 2, 1899 (*Rowlee, Wiegand, & Hastings*); Big Swamp, Oriskany (*Knieskern*): MICHIGAN, Washington (*D. Cooley*); deep swamp, Lansing, July 5, 1886 (*L. H. Bailey*, no. 101), June 24, 1892 (*C. A. Davis*); Howell Junction, June 10, 1890 (*C. F. Wheeler*): MINNESOTA, Minneapolis, July, 1886 (*H. M. Simmons*): BRITISH COLUMBIA, head of Deadman's River, June 21, 1889 (*J. M. Macoun*).

GRAY HERBARIUM.

## INTUITION AS A SUBSTITUTE FOR REFERENCE.

FRANK SHIPLEY COLLINS.

WHEN a new genus is proposed, it is usual for the author to indicate the derivation of the new name; and in manuals, floras, etc., these derivations are often given for all the genera. Some authors, however, have neglected to give any explanation of their new names, so that only more or less successful guesses can be made in subsequent works. But when the later writer depends, as a rule, on his intuitions, a comparison with the original description may show a curious difference, as seen in the two cases following.

Among the few algae mentioned in Provancher, *Flore Canadienne*,



we find a reference to a quite rare genus of fresh water, *Thorea*; it is doubtful if the plant the author had in mind really belongs to this genus; but the reference is not without interest in another way. The genus is noted, p. 760, as follows: — “*Thorée*, *Thorea*, Bory. (Allusion au dieu Thor des Scandinaves, qu’on représentait velu, comme les rameaux de cette plante.)” Such curious derivations of botanical names are not unknown, but a reference to the original description by Bory de St. Vincent, *Annales du Muséum*, Vol. XII, p. 126, 1808, shows a dedication to the discoverer, Dr. Thore, of the town of Dax, an excellent botanist, author of a local flora, etc. Now nothing is more common than neglecting to look up the original description of a plant you are discussing, but what a powerful imagination the Abbé Provancher must have had; or did he have some trusted but untrustworthy friend, with no respect for the cloth?

Another case of quite a different character, where an originally romantic name is reduced to most ordinary prose, can be found in connection with the genus *Pandorina*. All algologists know the *Sylloge Algarum* of De Toni; a compilation in systematic order of the descriptions of all recognized species of algae, with references and synonyms. It is a book that no working algologist can be without, and indeed, it is a most useful index; the plan is excellent, but there are so many inaccuracies, that one sometimes is reminded of the remark of the ancient Roman about the women; “there is no living without them, nor with them.”

The work is in Latin, and the derivation of *Pandorina* is given, “*pas*, totus, *dora*, vestis detracta.” The original description is not easy to find, being in the *Encyclopédie Methodique*, published in various series with all sorts of titles and subtitles; it is in the *Histoire Naturelle de Zoophytes*, vol. II, p. 600, 1824, and translated, reads, “Genus of microscopic organisms, type of the singular family of *Pandorinae*, in the order of the *Gymnopodinae*. The living molecules of which are composed the beings that we here include, are contained in a common envelope, within which they dwell, either independent of each other, or else in motile groups, still in the interior of the common envelope. This common envelope reveals, by its transparency, the strange mysteries of an organization where each individuality persists; that is to say, where the molecule seems to exercise a life of its own, while at the same time it co-operates in the general life. But as, when the box of Pandora opened to spread over

the earth what was contained in it, so here when the general envelope that imprisons the contained molecules is broken, the latter spread in every direction in virtue of a volition pertaining to each one of the globules, now become free. The discovery of such phenomena filled with wonder the first to observe them, and every one who sees them for the first time partakes of the same feeling of surprise."

It is apparently not considered good form for a botanist to pay much attention to aesthetic or sentimental matters in his scientific work; but it is to be hoped it will not be considered necessary to suppress what older authors may have done of this kind.

MALDEN, MASSACHUSETTS.

## RECORDS OF THE CONNECTICUT BOTANICAL SOCIETY,— I.

E. B. HARGER, Cor. Secr.

THE CONNECTICUT BOTANICAL SOCIETY held four field meetings during the summer of 1905 at Salisbury, Grants, Stratford and Groton.

The first of these was a two-day excursion to Salisbury under the guidance of Mrs. C. L. Phelps. The first day was spent in a trip by wagon from Canaan to Salisbury. Among other points of interest was the original New England station for *Wolffia*. The second day offered the choice of limestone or mica slate country and among the interesting plants noted, were *Rosa blanda*, Ait., *Carex Grayii*, Carey, *Arisaema Dracontium*, Schott., and *Arceuthobium pusillum*, Peck.

The second excursion was on July 9th to see *Rhododendron maximum*, L. in bloom in a swamp near the little station of Grants not far from Winsted. The party was guided by Messrs. Weatherby and Bissell, who had explored the region in advance and had pacified the owner of the swamp by a promise of payment for the proposed trespass. All felt repaid for the outlay of one dollar for the party when the *Rhododendron* was found to be in the full splendor of its bloom. During the trip Mrs. Phelps discovered the second station in the state for *Mitella nuda*, L., and Mr. Bissell collected a quantity of *Carex tribuloides*, Wahl. var. *reducta* Bailey not before reported from the state. Besides these, the members from the southern part of the state were

gladdened by the sight of many unfamiliar plants, notably *Dalibarda repens*, L. and *Lycopodium annotinum*, L.

The meeting at Stratford on Aug. 6th under the guidance of Dr. Eames was notable for the discovery of *Viola pectinata*, Bickn. by Mr. Bartlett and of *Lysimachia producta*, Fern. by Dr. Eames. Many other species of interest were shown by the guide, among them *Triosteum angustifolium*, L., *Viola septemloba*, LeConte, *V. sagittata*, Ait., *Sabbatia stellaris*, Pursh. and *Woodwardia angustifolia*, Smith; while those who knew *Habenaria ciliaris*, R. Br. only from scattered specimens will not soon forget a field which it covered with orange.

At Groton on Sept. 1st with Dr. Graves for guide the party first explored the border of Poquonnoc Lake, where Mr. Bissell discovered *Cuscuta compacta*, Juss. and Mr. Harger *Sagittaria longirostra*, J. G. Smith, both new to Connecticut. Besides these, *Carex oligosperma*, Michx., *Juncus militaris*, Bigelow, *Utricularia biflora*, Lam., *Lycopus sessilifolius*, Gray, and other species of interest were seen. After lunch the party proceeded by trolley to the sea-shore near Noank where they saw *Prunus Gravesii*, Britt., at its type station and *Ligusticum Scoticum*, L., at the limit of its southern range.

The annual meeting was held at New Haven, Jan. 27th, 1906. The former officers were re-elected, viz: — President, Prof. A. W. Evans; Vice-President, Dr. C. B. Graves; Secretary and Treasurer, Dr. E. H. Eames; Corresponding Secretary, Mr. E. B. Harger; Member of the Executive Committee, Mr. C. H. Bissell.

Dr. Graves reported on the proposed catalogue of the plants of the state, which he described as well under way and likely to be published this year. Mr. C. H. Bissell then read a paper on the Ferns of Connecticut, treating all species of ferns and fern-allies known from the state and exhibiting specimens. After a report of the Salisbury excursion, the meeting adjourned for dinner. In the afternoon Mr. A. H. Graves of the Yale Forest School gave a résumé of the Trees of Connecticut, showing specimens of each species and giving remarks on the distribution and other items of interest. This was followed by reports of the other field-meetings and an exhibition of specimens collected during the year by members; after which the meeting closed with an hour of informal talk.

#### OXFORD, CONNECTICUT.

*Vol. 8, no. 67, including pages 49 to 68 and plates 66 to 70, was issued 27 March, 1906.*



## BOTANICAL PUBLICATIONS

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